WHAT IS CLAIMED IS:

1. An apparatus for correcting deformation of a gas turbine blade comprising:

a stationary die fixed to a backside of a tip shroud of a gas turbine blade to hold a back surface thereof when deformation of the tip shroud of a gas turbine blade is corrected;

a pressing die pressing a front surface of the tip shroud so as to press the tip shroud of the blade between the pressing die and the stationary die;

a supporting mechanism for supporting the stationary die with respect to the pressing die;

a hydraulic drive mechanism connected to the pressing die and including pressure generator for pressing the pressing die against the tip shroud held by the stationary die; and

a control device operatively connected to the hydraulic drive mechanism and adapted to set and indicate a driving condition on a basis of deformation correction data preliminarily stored in the control device.

2. The deformation correction apparatus according to claim 1, wherein the surface of the stationary die contacting the tip shroud of the blade has a shape subtracting a return amount from the shape of the tip shroud after the correction of the deformation, and on the other hand, the surface of the pressing

die contacting the tip shroud has a shape adding a return amount to the shape of the tip shroud after the correction of the deformation.

3. The deformation correction apparatus according to claim 2, wherein the preliminarily stored data includes data of pressure and displacement to be outputted to the pressure generator of the hydraulic drive mechanism, said control device includes a pressure operating means and a displacement operating means, and said return amounts are operated and set by the pressure operating means and the displacement operating means based on a predetermined data with a position of the pressing die contacting the deformed portion of the tip shroud being a reference position.

4. The deformation correction apparatus according to claim 1, wherein the pressing die is composed of a plurality of divided sections, and said pressure generator includes a plurality of pressing devices corresponding to the divided sections of the pressing die so as to press the respective divided sections independently in accordance with setting conditions set for the divided sections, respectively successively.

5. The deformation correction apparatus according to claim 4, wherein said stationary die is composed of a plurality of divided sections so as to correspond to the divided sections of

the pressing die, said hydraulic drive mechanism further includes a pressure generator including a plurality of pressing devices corresponding to the divided sections of the stationary die so as to press the respective divided sections thereof independently in accordance with setting conditions set for the divided sections, respectively successively.

6. The deformation correction apparatus according to claim 1, wherein the pressing die has a convex portion contacting the tip shroud and said hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the convex portion contacts a portion of the tip shroud of the blade and also includes a moving device for horizontally moving the pressing die along an entire surface of the tip shroud while being pressed to thereby correct the deformation of the tip shroud during the movement.

7. The deformation correcting apparatus according to claim 1, wherein the pressing die contacting the tip shroud has a convex surface and the hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the pressing surface thereof rolls along an entire surface of the tip shroud by moving a loading point of the pressing die against the tip shroud surface.

8. A method of correcting deformation of a gas turbine blade

comprising the steps of:

inspecting presence or absence of deformation of a tip shroud of a gas turbine blade;

judging whether the deformed portion of the tip shroud is to be corrected or not;

softening a blade to which it is judged that the deformation correction is needed;

fixing a stationary die for holding a back surface of the tip shroud to the gas turbine blade on the back side of the tip shroud;

setting a pressing die pressing a front surface of the tip shroud so as to be movable under pressure and stop the movement at a time of contacting the tip shroud; and

pressing the tip shroud against the stationary die from the time of contacting the tip shroud.

9. The deformation correction method according to claim 8, further comprising the step of judging presence or absence of the displacement of the pressing die when pressed and continuing the correction working in the judgment of presence or stopping the correction working in the judgment of absence.